

SETTLEMENT AGREEMENT

(Regulation 83(1) Electricity Governance Regulations 2003)

DATED:

BETWEEN:

- (1) Transpower New Zealand Limited of 96 The Terrace, Wellington in its capacity as Grid Owner (Grid Owner);
- (2) Meridian Energy Limited of 12 Queens Wharf, Wellington (Meridian);
- (3) The Market Place Company Limited of 29 Brandon St, Wellington in its capacity as the Pricing Manager (Pricing Manager);

(Collectively the **parties**).

BACKGROUND:

- (A) On 18 April 2008 the Grid Owner self reported that it may have breached rule 3.3.2.1 of section V of part G.
- (B) In accordance with regulation 69 of the Regulations, the Board appointed an Investigator to investigate the Alleged Breaches.
- (C) Meridian and the Pricing Manager joined the investigation as interested participants.
- (D) The parties have agreed to settle the Alleged Breaches on the terms contained in this Agreement.

IT IS AGREED:

1. Interpretation

1.1 In this Agreement, unless the context requires otherwise:

- (a) **Agreement** means this Settlement Agreement;
- (b) **Alleged Breaches** means the alleged breaches of the Rules arising from the Circumstances and described in clause 2;
- (c) **Approval Date** means the date the parties to this Agreement are notified that the Electricity Commission Board has approved this Agreement under regulation 84(2)(a) of the Regulations;
- (d) **Board** means the Board of the Electricity Commission;

- (e) **Circumstances** means the circumstances set out in clause 3;
- (f) **Regulations** means the Electricity Governance Regulations 2003;
- (g) **Rules** means the Electricity Governance Rules 2003;
- (h) all capitalised terms not defined in this Agreement have the same meanings as in the Regulations or Rules, as the case may be; and
- (i) all references to clauses are to clauses of this Agreement.

2. Alleged Breaches

- 2.1 The Grid Owner breached rule 3.3.2.1 of section V of part G of the Rules by incorrectly calculating Demand Half-Hour Metering Information (metering information) for the North Makarewa Grid Exit Point which the Grid Owner later provided to the Pricing Manager. The metering information was incorrect for approximately 42% of Trading Periods between 5 August 2007 and 25 October 2007.

3. Circumstances of the Breaches

- 3.1 The White Hill Wind Farm, commissioned in July 2007, is embedded in a part of The Power Company Limited's Network that connects to the Grid at the North Makarewa (NMA) substation.
- 3.2 The metering information that the Grid Owner calculated and provided to the Pricing Manager between 5 August 2007 and 25 October 2007 was equal to the sum of Electricity flowing from the Grid through the two transformers at NMA. The calculation, which the Grid Owner used, did not account for Electricity flowing the other way through the NMA transformers and out into the Grid in situations where the Electricity generated by the wind farm exceeded the connected load.
- 3.3 Consequently, once the wind farm was commissioned, the demand figures calculated and provided by the Grid Owner to the Pricing Manager for NMA were incorrect whenever generation from the embedded White Hill Wind Farm exceeded the connected load. In those instances, the metering information calculated and provided was zero when it should have been a negative number. The incorrect data affected Final Prices and therefore had a market impact that could not have been resolved by a Washup.
- 3.4 Initially, the Grid Owner's metering contractor Energy Market Services Limited¹ (EMS) detected discrepancies between the calculated metering

¹ EMS is the Grid Owner's subcontractor for certain of the Grid Owner metering obligations under the Rules.

information and the check data from SCADA while undertaking validation checks but incorrectly attributed those to be due to the check data used. This incorrect understanding continued through July to September 2007 while the discrepancies increased.

- 3.5 On 24 October 2007, EMS contemplated the possibility of the discrepancies not being due to the check data used and sought clarification from Transpower Market Services on how it should be calculating metering information. EMS received advice from Transpower Market Services that connected load should be net quantities and give negative values when generation exceeded connected load.
- 3.6 On 26 October 2007 EMS corrected the demand calculation.

4. Impact of the Breaches

- 4.1 Final Pricing was affected for 1,644 Trading Periods due to the Grid Owner calculating and providing incorrect metering information to the Pricing Manager. Although the Grid Owner always provided correct metering information to the Reconciliation Manager for reconciliation and settlement purposes, the incorrect final pricing (which was calculated on the incorrect metering information provided to the Pricing Manager) was applied to this reconciliation information for settlement.
- 4.2 The incorrectly calculated metering information affected Final Prices and the market impact could not have been resolved by a Washup. Because the breach covered a long period of time and would have required significant recalculation and cost to determine the actual market impact for the entire period, the Pricing Manager and Clearing Manager were requested to calculate the market impact only for the period 19-23 October 2007. The market impact for this period shows that Generators were overpaid by \$335,914; Purchasers over charged by \$325,616 and loss constraints excess payments were underpaid by \$10,298. The market impact for the entire period is therefore likely to have been significant.

5. Guiding Principles

- 5.1 The parties agree the following guiding principles in relation to this Agreement:
 - (a) In light of regulation 116 (a) of the Regulations, which precludes the Rulings Panel from ordering compensation to be paid in respect of breaches such as the present breach, compensation is not sought in respect of the Alleged Breaches.
 - (b) The parties note that the Rules do not require the Grid Owner to be notified when Embedded Generation is connected to a Local Network.

- (c) The purpose of this Agreement is also to record the steps already taken by the Grid Owner to prevent recurrence of a similar breach.

6. Settlement

- 6.1 EMS staff have been warned over this incident and have been provided with further training concerning this rule.
- 6.2 For all existing bidirectional Metering Installations, EMS has reviewed the metering information calculation to ensure it is appropriate for the type of connection and generation.
- 6.3 The Grid Owner has made available to EMS all Embedded Generation data to enable EMS to make more accurate comparisons between SCADA and metering information.
- 6.4 EMS has reviewed the metering information and SCADA check data for all sites with Embedded Generation. EMS has modified calculations where necessary to ensure metering information and SCADA check data represent the same data.
- 6.5 EMS has implemented a checking process specific to certain market Nodes including NMA. For these Nodes EMS staff have been reminded that the calculated metering information should never equal zero. In instances where it does, EMS staff must provide an Initial Estimate of the metering information pending further investigation.
- 6.6 EMS will implement bidirectional metering at all sites that are known to have Embedded Generation and where there is a risk of reverse flows into the grid.
- 6.7 EMS will ensure the calculation for input data is appropriate for the type of connection and generation at the site.
- 6.8 The Grid Owner will establish procedures to ensure that EMS is advised of new generation connections or changes to existing connections, where metering may require to be changed, prior to them being commissioned..
- 6.9 The Grid Owner and EMS will consider the implementation of bidirectional metering as a default configuration for all sites when replacement of grid metering is undertaken.

7. Confidentiality

- 7.1 If the Board decides under regulation 85(2) of the Regulations not to publicise any part of this Agreement, each party will treat that part of the Agreement as confidential information and will not disclose it other than:

- (a) to the party's employees or contractors who need to know the confidential information to implement or monitor the implementation of this Agreement;
- (b) to the party's professional advisers, auditors and bankers;
- (c) as required by law or for the purposes of judicial proceedings;
- (d) as required by any securities exchange or regulatory or governmental body to which the party is subject or submits; or
- (e) as authorised in writing by the other parties.

7.2 A party must not disclose confidential information under clause 7.1(a) or (b) unless the party obtains a confidentiality undertaking from the person to whom the confidential information is to be disclosed on terms no less onerous than those set out in this clause 7 before disclosing the confidential information. Any confidential information to be disclosed in the circumstances set out in clause 7.1(c) or (d) may only be disclosed after written notice to the other parties (unless the disclosing party is prevented from notifying the other parties by law).

8. Agreement Subject to Approval

8.1 Subject to clause 8.2, this Agreement will come into effect on the Approval Date.

8.2 Clause 7 is binding on the parties as from the date of this Agreement. Pending the Board's approval of this Agreement under regulation 84(2)(a) of the Regulations, clause 7 will apply as if the Board has decided under regulation 85(2) of the Regulations not to publicise any part of this Agreement or the existence of this Agreement.

9. Settled Breaches

9.1 This Agreement is in full and final settlement of all claims, actions and demands against any party (under the Regulations, the Rules or otherwise) in relation to:

- (a) the Alleged Breaches; and
- (b) any other breaches of the Regulations or Rules involved in or arising from the Circumstances that the claiming party ought reasonably to have known about at the date of this Agreement,

(the Alleged Breaches and such other breaches together the **Settled Breaches**).

9.2 Pursuant to regulation 84, but subject to regulation 87 of the Regulations, this Agreement is also binding on the Board and all Participants who are not a party to this Agreement to the effect that:

- (a) the Board may not on its own initiative instigate a further breach investigation, or take any enforcement action in respect of, the Settled Breaches; and
- (b) a Participant who is not a party to this Agreement may, subject to and in accordance with regulation 87 of the Regulations, make a further notification under regulation 62 or 63 of the Regulations in relation to a Settled Breach, and the Board may then take all or any of the steps provided for in Part 4 of the Regulations despite this Agreement.

10. General

- 10.1 Each party will execute all documents and do, or refrain from doing, all other reasonable things necessary or desirable to give full effect to the provisions of this Agreement, including to secure the Board's approval of this Agreement under regulation 84(2)(a) of the Regulations.
- 10.2 This Agreement is the whole and only agreement between the parties relating to the settlement of claims, actions and demands arising from the Circumstances. Each party acknowledges that it has not been induced to enter into this Agreement by any representation made by or on behalf of the other party that is not repeated in this Agreement.
- 10.3 This Agreement may be signed in any number of counterparts.

SIGNED:

For Transpower New Zealand Limited

Name:

Position:

SIGNED:

For Meridian Energy Limited

Name:

Position:

SIGNED:

For The Market Place Company Limited

Name:

Position: